

THE STUDY OF MAN

WHAT DO WE KNOW ABOUT THE SOVIET ECONOMY?

Much of the Jigsaw Puzzle Is Missing

NICOLAS SPULBER

“MAKE statistics class-conscious and party-conscious!” This is the slogan governing economic reporting and research in the entire Soviet orbit today, and it has been acted upon with greater success than almost any other of the jargon-filled directives of the Stalinist world. Freely translated, it means: “Conceal both your strengths and your weaknesses, so that the outside world will never know definitely either your achievements or your failures.”

From the early 1930's, the Russians have worked increasingly to perfect this process of concealment and distortion. More and more they have limited the information they release to that alone which inflates their achievements. More and more statistical data are withheld and accordingly it becomes more and more difficult, at times downright impossible, to check the figures that are released. Finally, the Soviet bureaucrats have taken ever greater

liberties with statistical method itself: only rarely do they explain how the units counted were defined in the first place, how the data were gathered, or the total figures computed. Accordingly, the statements on economic development that come from official Soviet sources today present themselves as riddles.

HERE is one example from N. Voznesenski's book on the war economy of the USSR, as quoted by Professor A. Gerschenkron of Harvard in his note on Voznesenski's book in the *American Economic Review* (September 1948): “The number of workers and salaried employees in 1943 was 38 per cent lower than in 1940 although the share of industrial workers and salaried employees increased from 35 per cent in 1940 to 39 per cent in 1943.”

Professor Gerschenkron comments: “The total number of workers and salaried employees in 1940 equaled 30.4 million (cf. Voznesenski, ‘Report to the 18th Conference of the Communist Party,’ *Pravda*, February 19, 1941). Accordingly, industrial workers and salaried employees in 1940 equaled $.35 \times 30.4 = 10.64$; the total number of workers in 1943 equaled $30.4 \times .62 = 18.85$ of which industrial manpower = 39 percent = 7.35 million.” Thus, it could be deduced from Voznesenski's enigmatic statement that the number of industrial workers in the USSR decreased considerably during the war: in 1940 there were 10.64 million; in 1943, 7.35.

To be sure, all Russian economic riddles are not so susceptible of solution as this—assuming that we have solved this one. Every Russian official knows that to supply too many answerable riddles is to risk being purged or liquidated—as happened to Voznesenski.

For many years now, economists studying publications dealing with economic statistics have become accustomed to seeing, under the heading “Soviet Union,” rows of dots, signifying the absence of all information. Perhaps no country makes such a fetish of statistics—and releases so few. NICOLAS SPULBER, a specialist in the economics of Eastern Europe and Soviet Russia, here describes how economists in this country attempt to reach behind this most impenetrable of iron curtains to gain some knowledge of the Soviet economy and its workings. Mr. Spulber has written in many periodicals, in this country and abroad. He holds a doctoral degree from the New School for Social Research. His thesis dealt with the economic relations between Soviet Russia and Eastern Europe since the Second World War.

Why not then enforce a blackout over all statistical data instead of releasing the present huge amount of disconnected, merely descriptive, or completely meaningless material? For one thing, "statistics" have been an official Soviet fetish for too long a time to be suppressed entirely. It is part of the scientific technology on which the Russians lay such stress, and Marx's reliance upon figures and tables in his theoretical work would have hallowed the statistical method in their eyes in any case. Besides, the whole activity of Soviet society, political, economic, social, literary, and scientific, is geared to the achievement of the Politburo's plans and projects of the moment, and figures are the only way of telling what happens. Furthermore, the Kremlin's claim to appeal to the judgment of the world always on the basis of "facts, not words," likewise requires that a constant stream of "economic" data be poured out, both to impress and confuse, even if the regime's real intention is to pull tighter the curtain of secrecy.*

The task of studying Soviet economics is, hence, a peculiarly difficult one; in addition, even if we are successful in piercing the curtain of confusion and getting some "significant" data, we still have the difficult problem of evaluating these statistics for an economy very different from our own. What appears significant to us may have little or quite different significance in the USSR. What is the meaning, for example, of "price levels" when these are determined by state fiat? They may tell us more about the political aims of the regime than about the supply and demand of different products. On the other hand, it is evident that the foreign aims of the Soviet regime constitute the greatest single political problem in the world today. Regardless of the paucity of data available, regardless of the difficulties involved, we must therefore keep on trying to get at the reality behind the Iron Curtain. This is why the study of the Soviet economy

* The bulk of information on Soviet economics is gathered from the Soviet press: *Pravda*, *Izvestia*, national and local magazines and publications, and sometimes the Soviet radio. Additional information has also been obtained from refugees from the USSR. Now and then there is a windfall, such as the unexpurgated edition of the third Five Year Plan, captured during the war by the Germans and subsequently captured by the United States. It furnishes much valuable material for research.

has become a major concern of American economists, despite the frustrations involved.

Let us look now at some of the concrete results these scholars have achieved.

THE central economic problem of any organized society, "planned" or "unplanned," revolves around the creation and distribution of the (yearly) "national product." The "national product" must be divided between *consumption* and *accumulation*, between that which is currently consumed, and that saved and invested in order to further increase productive capacity. The way in which the part reserved for consumption is distributed depends on social stratification, on the standards of living prevailing in the society, on the incentives felt at the various social levels, and so on. The amount of the part reserved for accumulation, and the ends for which it is invested, depend on the development of the society—the degree to which it is industrialized—as well as on the strength and extent of state control. The stronger the state, and its grip on economic life, the easier for it to determine and control what is assigned to consumption and what retained for investment in either civil or military undertakings. The basic aim of research in Soviet economy is to ascertain its strength—that is, the physical volume and the rate of growth of its industrial production, the size of the Soviet national income, the proportion of it used for investment, and so on.

The dynamic element in the increase of the national product is the increase and diversification of *industrial* production. We know in general that a vastly increased industrial production has been from the beginning the primary economic—as well as political—objective of the Soviet regime, and that consumption has been limited for this purpose. According to the official figures released by the Soviet Union, the gross value of her industrial production increased more than fourteen times in the twenty-two years from 1928 to 1950—covering the period since the first Five Year Plan—an increase that would have been far greater if not for the war.

These figures have been computed on the basis of "comparable" or "fixed" prices. In order to keep constant the unit of measure of their industrial output and avoid the impact of variations in price, the Russians have used for their computations the prices of a base

year, 1926-27, the last "normal" year before the beginning of large-scale national planning. In terms of these prices, the gross value of Soviet industrial output rose from 16.8 billion rubles in 1928 to 95.5 billion in 1937, fell to 88.4 billion in 1945 as a result of the war, and rose again at a fantastic pace to 239.6 billion in 1950.

Fixed prices are, of course, the correct way to measure the actual increase in the value of output from year to year. But under rapid industrialization base-year prices can become obsolete in a very short time: new products appear that were not produced in the base year, and hence have no base-year price; certain items produced in very limited quantities and at very expensive prices in the base year are now produced on a mass scale and at far lower prices—and so on.

In the Soviet index, new items that entered the stream of production were given at the prices at which they were first produced. For example, the production of cars and trucks in the USSR began only in the early 30's, and the fixed price, for index purposes, assigned to a car or a truck was its 1932-34 price, namely nine or ten thousand rubles. In 1932-34 most Soviet trucks and automobiles were reproductions of Fords. These articles, which would have been sold at around \$600 in 1926-27 in the United States, were, at the rate of exchange prevailing in 1932-34, priced at the Russian equivalent of \$4500! (This example is from Naum Jasny's *The Socialized Agriculture of the USSR*, Stanford University Press, 1949.) For reasons like these, it is impossible to give any stable value, in terms of physical volume of production, to these over-all figures at fixed prices. It is perfectly clear therefore why the index of production shot up so rapidly: when an item that costs a penny in the West begins to be produced for the first time in the USSR at the cost of ten cents, naturally the value, in Soviet money, of Soviet production will mount sky-high as soon as such an item goes into production.

Even before the war, some Soviet statisticians clearly perceived this problem. But the central statistical office of the USSR ignored their objections, and continued to calculate the volume of Russian industrial production in terms of (comparable) "prices of 1926-27," using the results not only for propaganda

purposes, but also to establish the real targets of the national plans. Only in March of this year did it finally abandon this practice, and establish as the new price index the wholesale prices in effect in Soviet heavy industry on January 1, 1952.

Why the Soviet central statistical office clung to the "1926-27 fixed prices" long after their uselessness had been conclusively shown is one of the many Soviet mysteries. Propaganda aims do not explain it adequately, because the same figures were used in planning, too, and must have caused great difficulties: one can see one industry being assigned a goal much larger than another's, though the value of their products was actually the same. Nor can we charge the practice to "Russian inefficiency and incompetence," since Russian statisticians themselves were among the first to criticize it. Perhaps the real explanation lies in the egomania of the Stalinist bureaucracy, which must have found its greatest gratification in these leaping figures.

From the early 30's it was perfectly clear to Western scholars that the Soviet index of industrial production was inflated. For example, it could be seen that the increase in industrial volume was completely out of gear with the far slower increases in the Soviet's production of basic raw materials such as iron, coal, and steel. The figures for the machine industry and those for ferrous metals, which of necessity maintain a given relation in all other economies, appeared completely unbalanced. But when Western economists tried to figure out the extent of the inflation they came up against a stone wall. The Russians had taken timely precautions. Aside from the exceptional case of car and truck prices, no actual 1926-27 prices were, or are, made available at all. And since 1931 the relation between 1926-27 prices and current prices has not been published.

ONE solution to this problem of measuring the true pace of Russian industrialization has been undertaken by Alexander Gerschenkron of Harvard. He has constructed a complex index of Russian machinery output, based on American prices for the same goods in 1939. He first gathered from the Soviet press figures on the production of given types of machines. He then tried to establish the 1939 United States prices for these machines, and so set

up an index to measure production. His index showed that Russian machinery output increased at a much slower rate than the Russians contended. (*A Dollar Index of Soviet Machinery Output 1927-28 to 1937*, Rand, 1951.)

While this work is admirable for its skill and audacity, it is subject to serious criticism: as Professor Gerschenkron himself points out, his index measures Soviet growth with the prices of a highly developed economy, in which all the savings of mass production and experience are already reflected. While the Russians inflate their achievements by using the prices of an agricultural economy which produced a very small quantity of industrial products, Professor Gerschenkron's index tends to deflate them by using the prices of the most advanced economy. Thus we are still left on inconclusive ground.

Since we cannot establish the rate of overall industrial growth in the USSR, any comparison with, for instance, the United States in this respect has to be undertaken on the basis of the physical volume of production of such basic commodities as coal, iron, steel, oil, etc. The figures for their production can be gathered from the published texts of the Soviet economic plans, from official pronouncements on the fulfilment of these plans, and from various specialized periodicals. The following comparison is illuminating.

In 1928, on the eve of the first Five Year Plan, Russia's annual coal production was about equal to that of America's in 1870; its production of electric power equal to ours in 1902; of pig iron equal to ours in 1890; and its railroad mileage was about the same as ours in 1869. At the end of the first two Five Year plans (1928-1937), Russia's increase in annual output of coal was equivalent to the increase we achieved in the seventeen years between 1870 and 1887; its increase in electric power was equivalent to ours in the twenty years between 1902 and 1922; its gain in steel matched ours in the fifteen years between 1890 and 1905. In the case of pig iron, petroleum, and copper, the American rates of growth were equal to the Russian, and, in the key sector of railroad mileage, the United States accomplished as much in the two years from 1869 to 1871 as Russia did in eleven years under central planning from 1928 to 1940. We may conclude therefore that though the Russian rate of industrial growth

has been impressive under the Soviets, it is not unique, and was matched by the rate of growth achieved by American capitalism in years past.

OVER-ALL figures for "national income" have an even greater effect on the modern imagination than data on industrialization. The idea of encompassing in one set of figures the activities of innumerable individuals in countless occupations—of an entire nation—is a spectacular one. Since the early 30's, the concept of "national income" has become the most popular one of all in economics. However, few of those who quote national-income figures realize the complexities of the term. While all economists may agree that "net national income" is the net value of all economic goods produced by a nation in a given period, Soviet and Western economists will disagree about what is meant by "net value," by "economic goods," and by the term "produced."

The West embraces, under the term national income, *the net products of all activities (of the nation) connected through the market*. The statisticians of the U.S. Department of Commerce consider each individual—whether a worker, an entrepreneur, a doctor, a clerk, President Truman, or Senator Taft—under three headings: what he contributes to the national income by work and services, what he receives in income (in effect, the former is measured by the latter, with certain important exceptions), and what he spends of income. These three sums, after certain adjustments, must balance.

Quite different is the Soviet concept, which is derived from a mechanical and schematic interpretation of Marx. According to Marx, the value of each *material good* consists of two parts; it is made up, on the one hand, of the value of the raw material plus that added by the machine, and, on the other, of a part newly created and added by the worker. The value added by the worker is equal in monetary terms to the wage he receives, *plus* the "surplus value," or profit, pocketed by the owners of the means of production. In the capitalist system, this owner is the private entrepreneur; in the USSR, he is the state. But in both cases, surplus is created and appropriated.

Under the Russian interpretation of this

scheme, a writer, a barber, a clerk, Stalin himself, and all his state and party officials, since they are not "workers," do not add in any way to the national income. They are only consumers of income "derived" from the value added by industrial and agricultural workers. Since the wages of all other groups are merely "derivative income," it would be erroneous to include them in the total of the net national income. Thus the Russians have concerned themselves only with the origins of their national income—namely its source in industry, agriculture, trade, transportation, and construction—and do not tell us of income earned in the other, derivative areas of economic activity. It would, of course, be interesting to know, even in Russian terms, how the national income is distributed among the various strata of society, and it has often been suggested by Russians themselves that such information be prepared. But if it has, it has never been published: the central statistical office evidently does not care to show the relation between "derivative income" (in which there must bulk large that of the top-heavy bureaucracy) and "newly created value" in the USSR.*

The Russians have published some figures on national income according to their standard of fixed (1926-27) prices, as well as according to certain tabulations of the source of national income. After the war, they published some percentages on the basis of which the national income in these fixed prices could be deduced for the years up to 1950. This showed that the Soviet national income computed in 1926-27 rubles rose from 25 billion in 1928 to 210 billion in 1950.

We have already indicated the weaknesses of these figures as indices of industrial production. They show equally grave shortcomings as regards national income. Thus in 1928 the contribution of agriculture to the Soviet national income in "fixed prices" represented 37.6 per cent of the total. In 1934 this contribution had fallen to only 16.8 per cent. In more recent years we tread on shifting ground. It would appear that the agricultural contri-

bution represented 11.7 per cent of the national income in 1940 and less than 8 per cent in 1950. Undoubtedly, with the increase in industrialization, agriculture has lost much of its previous weight in the Soviet economy. Nevertheless, it seems incredible that *more than half* of the population of the country—for more than half still does work the land in Russia—should have contributed *less than 8 per cent* of its income. We must conclude again that the national income derived from industry has been greatly exaggerated—as we have already been led to conclude on other grounds.

BUT, once again, detecting the exaggeration is not the same as knowing its extent. Here, too, the specialists had a hard nut to crack.

Among all those who have applied themselves to this problem of calculating Soviet national income in a meaningful way, it seems to me that Professor Abram Bergson, of Columbia, has done the most fruitful work. His "Soviet National Income and Product in 1937," which appeared in the *Quarterly Journal of Economics* for May-August 1950, is one of the most decisive contributions in the field of Soviet economics.

Abandoning the Soviet figures for national income in 1926-27 rubles, Professor Bergson addressed himself solely to the data that the Russians have released in *current rubles* (budget figures, wages, taxes, defense expenditures, etc.). This kind of data had been neglected hitherto as a basis for the recalculation of the Soviet national income. He recast these figures in the familiar form of the U.S. Department of Commerce tabulations of national income. Naturally, tremendous problems arose. For example, when we attempt to calculate agricultural output and its value in current rubles, we discover that part of the agricultural product is paid to the government in kind, in return for the use of its agricultural machinery; part must be sold under compulsion to the government at artificially low prices; part is sold to the government on a voluntary basis, at higher prices; part is retained for seed and fodder; part is sold on the retail collective-farm market. How, then, are we to estimate the *total value* of the Soviet agricultural product?

Professor Bergson dealt with these and a host of other problems, and he constructed,

* The Russian concepts and methods, as distinguished from the Western ones, are defined in the *Slovar Spravochnik po Sotsialno Ekonomicheskoi Statistike* ("Dictionary and Guide to Socio-Economic Statistics," Central Bureau of the USSR State Planning Committee for 1944).

for the year 1937, what amounted to a new over-all account, in its details, of the structure, origin, and distribution of Soviet national income. Borrowing for the occasion the Marxian concept of "surplus value," Professor Bergson pointed out that the so-called "rate of exploitation" (or rate of surplus value or profit, which was defined as the proportion of surplus value to the wages received by workers who created "value" in the Marxist sense) must be much higher in the "socialist" than in the capitalist world. For 1937, the "surplus value"—or all types of profit—calculated as a percentage of the national income, amounted to 38 per cent in Russia as against 36 per cent in the U.S. If one takes into consideration, however, the effect of the Russian turnover tax, which is a means of concentrating additional "surplus value" in the hands of the state, the percentage of surplus value appropriated in the USSR rises even further, to as much as 48 per cent of the national income.

The figures also show that Russian households consumed about 54 per cent of the gross national product, or total production of the year, as against 74 per cent by American households. This smaller proportion of consumption in Russia, we must realize, came from a much smaller gross national product and had to satisfy a much larger population. Moreover, consumption falls to only 43 per cent of the gross national product once we eliminate the consumer goods absorbed by the state apparatus.* This fantastically low

* The Russians do not publish a cost of living index. The measurements of the changes in the Soviet standard of living undertaken outside of the USSR take various forms: studies of changes in the yearly value of per capita consumption, studies of the consumption of given consumer goods per capita, construction of an index of cost of living based on selected consumer goods, and so on. All are open to criticism. For example, a cost of living index based on prices for selected products—a pre-war attempt of Professor Prokopovitch—is difficult to interpret, because of multiplicity of prices for the same product at given times (1928-1935 and again 1941-1947). Comparisons of purchasing power per work hour between the United States and Russia are also of limited value. The evidence on wage rates is too sparse to determine real wages, since these are affected by the allocation of substantial premiums and bonuses, sometimes more important than the nominal wage itself. Thus, the best gauge of the level of consumption remains its measurement as a proportion of the national income.

rate of consumption permitted in 1937 an investment in capital equipment of 32.5 per cent of the net national income (of which 7.4 per cent went for military investment) as against half as great a proportion in the U.S.—16 per cent (of which 1 per cent went for defense).

Professor Bergson's study is the first step toward a complete recomputation of the Soviet national income during the period of the Five Year plans. In a series of preliminary papers, as yet unpublished, Professor Bergson has also computed the Soviet national income and product for 1940, 1944, and 1948. To most of the specialists in the field, it is clear that only this type of work can place the economic comparison between the two systems on more solid ground.†

AT THIS point, we begin to be able to approach the major questions posed by the Soviet economy: Does an over-all planned economy produce more goods with less work than a market economy? Does planning eliminate waste, and enable more economic goods to be produced with the same resources? Let us take a closer look at the mechanism of Russian planning.

According to Russian accounts, the starting point in planning is the necessity of insuring the correlation between the development of the various branches of the economy: in other words, the planning board checks the needs of one industry against the aims of the industries that supply it, and checks their various goals against the over-all availability of resources. The starting point is the establishment of realistic goals in such basic fields as coal, iron, ore, steel. The second step is to make the goals in the industries that depend on these resources consistent with the goals set for the industries that produce the latter.

If this procedure were to be consistently carried out in all its implications, it would require the solving of literally millions of equations, and this would become the chief

† All the Soviet satellites have taken up the Soviet practice of reporting increases in their national incomes in percentage form. This has had some amusing consequences: Rumania, for instance, has never had any calculation whatsoever made of her national income, so that the percentages in her case are figured on no apparent base.

economic activity of the country. Since this is impossible, the plan concentrates on essential items and gears the economy toward the realization of the goals set for these items. This means that, for many industries, "planning" is left quite incomplete and in mid-air. There is enough steel targeted to meet the demands of the locomotive and airplane industry, but a shortage may develop in hairpins, or perhaps in some vital machine part. Furthermore, at any point many alternatives can present themselves to the planners—for example, whether to invest in a new plant with labor-saving machinery, or to use more labor at the old machines. How does the planning board choose between these alternatives?

In the capitalist system any choice can—at least theoretically—be made by taking into consideration the rate of return of one investment as compared to the other. The Russians shy away from such a criterion. The acceptance of the Marxist labor theory of value precludes the concept of a "return" on capital. But, by refusing to use such a concept, they are in fact left without any guide whatsoever in choosing between alternatives, and hence the basic problem of eliminating inefficiency and waste is left untouched.

Much has been written on this question, but this writer feels that there can be no real solution of the problem under present Soviet planning, and that the waste must be enormous—as, indeed, the available evidence seems to show.

Now, having indicated how ignorant we still are, despite nearly five hundred research projects undertaken on Russia, and one hundred on the Eastern European countries that are now under way in the United States, it would perhaps be helpful to conclude with a simple comparison of economic strength.

Despite all the blanks in our knowledge of the Soviet economy, the figures would indicate that things are very much in favor of the U.S. The enormous growth of American production since 1939, and the destruction suffered by the USSR in the war, have greatly lowered the relative strength of the Soviet

Union, which was small enough to start with. Except in coal, the combined industrial potential of the USSR and Eastern Europe is today smaller in comparison with that of the U.S. than was the Russian potential alone in the pre-war period, as can be seen from the following table, based on official Soviet and East European output figures, which shows Soviet production expressed in percentages of U.S. production:

	USSR 1937	USSR and Eastern Europe 1950
Coal	31.2	71.5
Petroleum	18.3	16.2
Electric Power	31.6	29.3
Pig Iron	50.7	40.6
Steel	41.9	40.4

Against this, however, we must place the fact that a much smaller proportion of Russian production goes into general consumption, and a much higher proportion to the armed forces. And since the Russian standard of living is so low, the same amount spent on the military in Russia will go much farther than in America. Beyond that, Russia has in the event of war the possibility of rapidly and greatly expanding its industrial capacity by overrunning Central and Western Europe and Southeastern Asia. This would certainly render all the present comparisons obsolete and useless.

Yet, despite these uncertainties, the analysis of the rate of growth of Soviet industrial production, of Soviet national income, of its distribution and structure, of the possibilities and limitations of planning, of given Soviet economic categories such as wages and prices, of the various aspects of the Soviet control over Eastern Europe—all this is of enormous importance. In spite of many gaps and imperfections, such analysis affords the most useful clues we have to the nature of Soviet economic life. But even the best statistics and the best analysis, we must realize, cannot have a predictive value: life in the USSR is not an economic process deducible as a function of economic data. It must always be remembered that the dynamics of Soviet life are political, not economic, and it is in the political sphere that final decisions rest.